

## A NEW MEXICAN *EPIDAMAEUS* (ORIBATEI: DAMAEIDAE)<sup>1</sup>

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**ABSTRACT:** A new mite species in the genus *Epidamaeus*, inhabiting leaf litter on Popocatepetl volcano, is described.

**RESUMEN:** Se describe una nueva especie de ácaro del género *Epidamaeus*, habitante de hojarasca del Volcán Popocatepetl.

The family Damaeidae (*sensu* Norton, 1979a) is almost unknown in Mexico; only one species (*Belba clavisensilla*) has been described recently (Norton and Palacios-Vargas, 1982). The genus *Epidamaeus* includes about 30 known species, mainly distributed in the Palearctic Region (Norton, 1979b). Only three of them are known to occur in South America and none has ever been described or recorded from Mexico; the first is described below.

The terminology used in the description is mostly that of Grandjean (see Travé and Vachon, 1975 for many references).

### *Epidamaeus mitsensillus* n.sp.

**Dimensions.** Mean ventral length of five specimens 681  $\mu\text{m}$  (range 652-740  $\mu\text{m}$ ); mean total length 746  $\mu\text{m}$  (range 710-796  $\mu\text{m}$ ); mean maximum notogastral width 429  $\mu\text{m}$  (range 403-460  $\mu\text{m}$ ).

**Cerotegument.** Body and legs covered with a layer of reticular cerotegument (Fig. 1).

**Prodorsum.** (Figs. 2, 3). Relatively narrow, subtriangular. Integument smooth. Dorsosejugal enantiophysis (Da) present; without discernible postbotridial enantiophysis. Setae *le* finely barbulated; *ro* smooth and thinner; *in* relatively short, barbulated. Sensillus (*ss*) smooth, long (190  $\mu\text{m}$ ), not tapering, distal end expanded, sagittate.

All setae other than most of tarsi and venter, and sensillus birefringent in basal 3/4.

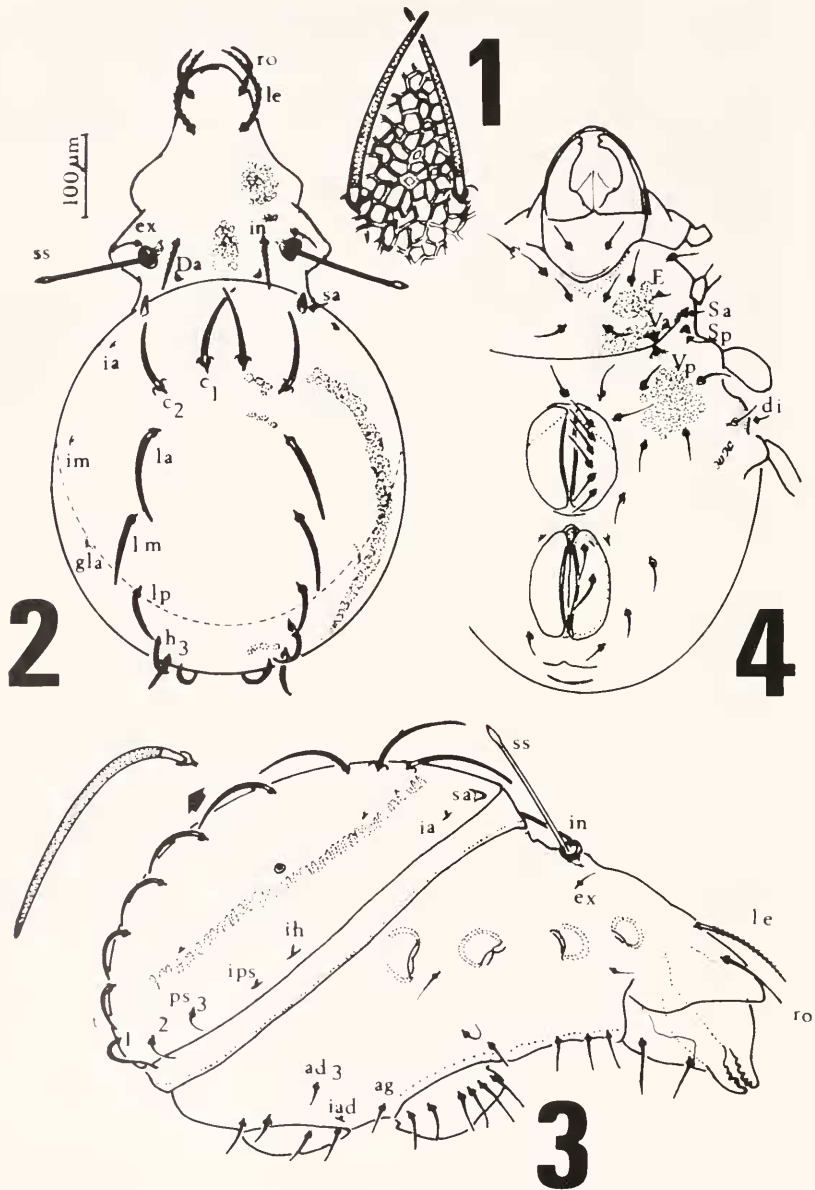
**Notogaster.** (Figs. 2, 3). Slightly ovate viewed perpendicular to circumgastric suture; about 1.1 times longer than broad. Spinae adnatae (*sa*) small. Notogastral setae smooth, gradually tapered, with dark pigmentation except close to insertions. Setae *C*<sub>1</sub> and *C*<sub>2</sub> directed anteriorly, others directed posteriorly (except *ps* setae). Setae decreasing in length from *C*<sub>2</sub> to *h*<sub>1</sub>. Row *ps* more or less parallel to circumgastric suture; *ps*<sub>2</sub> and *ps*<sub>3</sub> much smaller than other notogastral setae and finely attenuated. Opisthosomal glands and lyrifissures normal as for family. Nymphal exuviae often carried by adults.

**Ventral region.** (Fig. 4). Tubercles E2p, Va and Vp well developed. Tubercles Sa and Sp short, difficult to see. Numerical formula for epimeral setae (I to IV) 3-1-3-4. Discidium (*di*) broadly rounded. Anogenital region typical for family.

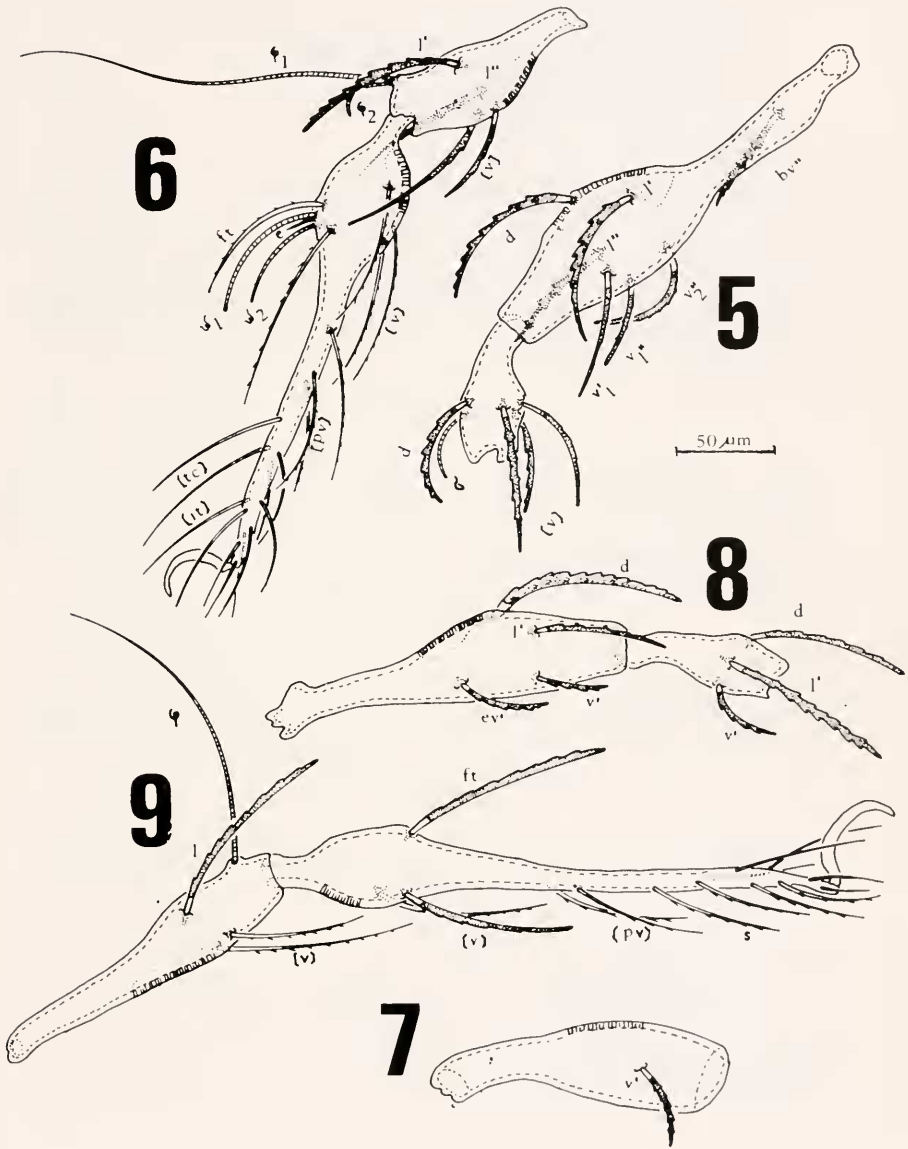
**Legs.** (Figs. 5-9). Porose areas on trochanters III and IV, on all femora, tibiae and tarsi. Setal formulas for the legs, from trochanter to tarsus (famulus included, number of solenidia in

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Figs. 1-4. *Epidamaeus mitlsensillus* n.sp. 1, cerotegument between setae C<sub>1</sub>; 2, dorsal aspect; 3, lateral view; 4, ventral aspect.



Figs. 5-9. Legs of *Epidamaeus mitsensillus* n.sp. 5, femur and genua I; 6, tibia and tarsus I; 7, trochanter IV; 8, femur and genua IV; 9, tibia and tarsus IV.

parentheses) as follows: Leg I, 1-7-4(1)-4(2)-20(2); leg II, 1-6-4(1)-17(2); leg III, 2-4-3(1)-3(1)-17; leg IV, 1-4-3-3(1)-14.

Ratio of the length of legs I:II:III:IV = 1:0.8:1.0:1.3. Leg IV about 1.2 times ventral body length. Relative length of leg segments as follows: Leg I, F:G:Ti:Ta = 1:0.3:0.5:1.1; leg II = 1:0.3:0.5:1.3; leg III, Tr:F:G:Ti:Ta = 1:1.3:0.6:1.0:2.2; leg IV = 1:1.1:0.5:1.0:1.9.

Derivatio nominis: from the Nahuatl: *mitl* = arrow and the Latin *sensillum*; referring to the arrow-like form of the sensillus.

**Material Examined:** Specimens were obtained from *Pinus hartwegii* litter samples from Popocatepetl Volcano, State of Mexico, 3,800 m elevation, 5-IV-1982, J.G. Palacios-Vargas *leg.* There is another record from Sta. Ana, Milpa Alta, D.F. *ex.* leaf litter, D. Chora *leg.* The holotype and two paratypes in alcohol are deposited in the Laboratorio de Acarología, Facultad de Ciencias, UNAM, México. Two paratypes in alcohol will be sent to each of following institutions: Museo de Historia Natural de la Ciudad de Mexico, Mexico, D.F., College of Environmental Science and Forestry, Syracuse, New York; Laboratory of Acarology, Columbus, Ohio, U.S.A.

### DISCUSSION

The new species here described is similar to *Epidamaeus flagelloides* Norton, 1979 (Norton, 1979c) but differs in the type of cerotegument, form of setae  $ps_1$ , sensillus, notogastral setae and enantiophyses. The new species is distinguishable from all known species of *Epidamaeus* by the reticulate cerotegument and sagittate sensillus.

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